



In many cases it is necessary to grind one or more teeth on a ring gear in order to reinstall the cross pin in many c-clip style differentials. Generally this will not interfere with the contact pattern of the gear or decrease the strength in any way as long as it is done properly. Very rarely you may need to grind as much as $\frac{1}{4}$ of one or two teeth away. However, we have no problem running a gear-set in our own vehicles with $\frac{1}{4}$ of tooth ground off of the toe or $\frac{1}{8}$ th of the heel of one or two of the ring gear teeth.

Gear grinding should always be done on the bench top, not while gear is installed. This is to avoid getting metal and other contaminants into the housing or differential carrier. Most of the time you will only need to grind about $\frac{1}{8}$ " off the corner of the tooth. After the desired amount of material is removed, you need to use a medium grit 3M disk to round the edges and remove any burrs. Be sure to clean a gear thoroughly before you reinstall it into the housing.

